



COUNTY OF SAN DIEGO
Great Government Through the General Management System – Quality, Timeliness, Value
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

WASTEWATER PLANT OPERATOR TRAINEE	Class No. 007072
WASTEWATER PLANT OPERATOR I	Class No. 007071
WASTEWATER PLANT OPERATOR II	Class No. 007070
WASTEWATER PLANT OPERATOR III	Class No. 007069

■ CLASSIFICATION PURPOSE

To perform technical duties related to the operation, maintenance and installation of rural wastewater or water treatment plant systems including: pumping stations and potable water distribution systems; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

Positions in these classes are allocated only to the Department of Public Works and are responsible for a wide variety of tasks, which include skilled wastewater treatment plant operations, routine plant maintenance, laboratory, and routine housekeeping duties at a treatment plant. Wastewater Plant Operator is a technical class series requiring incumbents to possess certification issued by the State of California Water Resources Control Board.

Wastewater Plant Operator Trainee:

This is the entry and training level class of the Wastewater Plant Operator series. Under immediate supervision, incumbents learn to operate, maintain and repair plant equipment and acquire experience leading to state certification.

Wastewater Plant Operator I:

This is the first working level in the Wastewater Plant Operator series. Under general supervision, incumbents possess a Grade I Wastewater Treatment Plant Operator certificate and operate and maintain facilities within their area of certification without immediate supervision.

Wastewater Plant operator II:

This is the journey level class in the Wastewater Plant Operator series. Under general supervision, incumbents perform the full range of facility operations and maintenance work. Incumbents must possess a Grade II or higher Wastewater Treatment Plant Operator certificate.

Wastewater Plant Operator III:

This is the lead worker class in the Wastewater Plant Operator series. Under general supervision, incumbents provide technical guidance, training and leadership to lower class wastewater operators, and may supervise in the absence of the supervisor. Incumbents must possess a Grade III Waste Treatment Plant Operator certificate and may be assigned responsibility for a geographical district. This class differs from the next higher class, Wastewater Facilities Supervisor, in that the latter is a first line supervisor responsible for assigning, reviewing, and evaluating the work of subordinate staff and overseeing staff training.

■ FUNCTIONS

The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such functions are a logical assignment for the position.

Essential Functions (Wastewater Option):

The following applies to all classes:

1. Participates in the daily operation and maintenance of wastewater pump station tasks.
2. Operates and maintains all segments of wastewater treatment plant processes including primary, secondary, effluent disposal by percolation beds or spray irrigation, handling of solids by use of digester, drying beds, and landfill disposal.
3. Opens and closes valves manually or by remote control.

4. Operates mechanical equipment to regulate the flow and treatment of sewage or sludge.
5. Initiates or shuts-down electric motors, centrifugal and positive displacement pumps, bar screens, grit collectors, air compressors, conveyors, and related equipment.
6. Carries out working orders in the plant or assigned unit of the plant according to the readings of meters, gauges, and other control and measuring devices.
7. Maintains a shift log of unit operations and records of readings of meters and gauges.
8. Performs water distribution system operation and maintenance duties on well pumps, mains, valves, and hydrants.
9. Performs routine maintenance duties to machinery and equipment such as packing glands to stop leaks, lubricating equipment, changing belts, cleaning aeration and sedimentation tanks, and installing meters and taps.
10. Hoses down skimmers, catwalks, and stairs.
11. Reports items in need of mechanical repairs.
12. Receives and stores supplies such as chlorine, sulfur dioxide, polymer, defoamant, and other chemicals.
13. Performs routine laboratory tests and records data.
14. Prepares logs and reports.
15. Provides responsive, high quality service to County employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.

Wastewater Plant Operator III

All the functions listed above and

1. Provides technical training, guidance, and leadership to lower level classes.
2. Performs tasks in an assigned geographical district as needed.
3. Assumes the duties of a Wastewater Facilities Supervisor during their absence.

Essential Functions (Water Option):

The following applies to all classes:

1. Operates and maintains water treatment and distribution systems involving water treatment plants, filters, distribution systems, chemical application and chlorinators.
2. Installs or inspects the installation of new and replacement plumbing, pumps, motors, and related equipment.
3. Maintains springs, wells, reservoirs and other associated water treatment supply and distribution equipment.
4. Installs or inspects the installations of distribution mains, meter service clients, meters and new connections from mainline to meter.
5. Order stock and maintains stock control records.
6. Performs simple chemical tests, operational and regulatory sampling, and records results.
7. Read meters to determine water usage.

Wastewater Plant Operator III (Water Option)

All the functions listed above and

1. Prepares and submits required reports to the California Department of Health Services, for the annual Consumer Confidence Report.
2. Ensures compliance with all federal, state, and local laws, rules and regulations pertaining to water quality standards, sample testing, record-keeping and reporting.
3. Estimates costs and reviews plans for new and replacement installations.
4. Implements water quality sampling procedures, conducts field sampling, and evaluates and analyzes water quality data.

5. Interprets testing data to develop an operational strategy and make recommendations to system operators and managers.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

The following apply to all classes:

- The fundamentals of laboratory equipment and methods, sample analysis, and interpretation.
- Wastewater treatment plant and water distribution system equipment and machinery such as: pumps, valves, electric motors, motor control centers, screening devices, flow meters, trickling filters, activated sludge process, aerobic digesters, sludge drying beds, effluent percolation beds, and spray irrigation systems.
- Sampling devices employed in the collection of samples for analysis.
- Mathematics utilized in wastewater data analysis.
- Safe work practices for wastewater treatment, water distribution, and disposal plant operation.
- County customer service objectives and strategies.

Wastewater Plant Operator III (in addition to the above):

- Specific wastewater/water treatment processing techniques, and their results at various stages of processing.
- Wastewater/water treatment plant operation parameters, process control procedures, techniques, and policy.

Skills and Abilities to:

The following apply to all classes:

- Learn and operate all phases of a wastewater/water treatment plant.
- Read and comprehend training manuals, diagrams, and technical instructions.
- Record and interpret meter and gauge readings, water usage, and maintain operating logs.
- Perform sample collection, laboratory testing, and analysis required to operate the plant within legal parameters.
- Perform mathematical calculations and data analysis involved in wastewater/water treatment and disposal plant operations.
- Recognize the need for plant and equipment maintenance, repair work, and order appropriate stock.
- Use tools and equipment necessary to operate and maintain wastewater/water treatment plants, plumbing stations or related water distribution facilities.
- Prepare written reports such as log entries, preliminary spill reports, and related forms and reports.
- Utilize computers and application programs to enter data in spreadsheet reports.
- Maintain accurate operational data records.
- Meet work deadlines.
- Communicate effectively orally and in writing.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.
- Assess the customer's immediate needs and ensure customer's receipt of needed services through personal service or referral.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

Wastewater Plant Operator III (in addition to the above):

- Provide technical training and leadership to lower level operators in the operation and maintenance tasks of primary and secondary wastewater treatment plants, wastewater collection pump stations, and water distribution systems.
- Read and understand piping and blueprint layouts.

■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

Wastewater Plant Operator Trainee:

1. No experience required. Must obtain an Operator-in-Training Certificate issued by the California State Water Resources Control Board within six (6) months of appointment.

Wastewater Plant Operator I:

Possession of a Grade I Wastewater/Water Treatment Plant Operator certificate, AND

1. One (1) year of experience in the operation and maintenance of a wastewater/water treatment plant and/or complex pumping station facility, OR
2. One (1) year of experience in the operation and maintenance of hydraulic pumps, electric motors, hydraulic valves and flow metering devices.

Wastewater Plant Operator II:

1. Possession of a Grade II Wastewater/Water Treatment Plant Operator certificate; AND, two (2) years of experience as a Wastewater Plant Operator I with the County of San Diego or the equivalent in another agency.

Wastewater Plant Operator III:

1. Possession of a Grade III Wastewater/Water Treatment Plant Operator certificate; AND, three (3) years of experience as a Wastewater Plant Operator or Water Treatment Plant Operator, one year of which must be at the II level, for the County of San Diego or another equivalent agency, OR
2. Possession of a Grade I Water Distribution Operator certificate issued by the State Department of Health Services.

■ ESSENTIAL PHYSICAL CHARACTERISTICS

The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.

Continuous upward and downward flexion of the neck. Frequent: walking, standing, bending and twisting of neck, bending and twisting of waist, squatting, simple grasping, reaching above and below shoulder level. Incumbents use physical strength and agility on a continual basis, including lifting objects frequently weighing up to 50 pounds, and occasionally weighing up to 70 pounds.

■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment.

Certification/Registration

Possession of a current Wastewater Treatment Plant Operator Certificate issued by the California Water Resources Control Board is required at time of appointment as follows:

Wastewater/Water Treatment Plant Operator I, Grade I
Wastewater/Water Treatment Plant Operator III, Grade III

Wastewater/Water Treatment Plant Operator II, Grade II
Water Distribution license Grade I

Possession of a Water Distribution Operators (WDO) certificate issued by the State of California Department of Health Services pursuant to subsection 63770(b) of the California Health and Safety Code within one (1) year of date of hire.

Working Conditions

Works outdoors in all weather conditions. Exposure to wastewater odors, chemicals and bacteria.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in these classes shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

New: December 7, 1995
Revised: July 26, 2002
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